

be wiped cleaner and energy efficiency for operating the dish washing machine may be increased.

[0148] The scope of the disclosure is not limited to the particular embodiments described above. It should be appreciated that various other embodiments modifiable or changeable by one of ordinary skill in the art within a range without departing from the essence as the technical concept of the disclosure defined by the claims are also included in the scope of the disclosure.

[0149] Although example embodiments of the disclosure have been shown and described, it would be appreciated by those skilled in the art that changes may be made to these embodiments without departing from the principles and spirit of the disclosure, the scope of which is defined in the claims and their equivalents.

What is claimed is:

1. A dish washing machine, comprising:
 - a body;
 - a plurality of jet nozzles configured to jet washing water;
 - a sump configured to store the washing water;
 - a pump including a pumping motor configured to pump the washing water stored in the sump, a pumping motor shaft, and a housing including a plurality of outlets; and
 - a distributor configured to distribute the washing water pumped by the pump to at least one of the plurality of jet nozzles through at least one of the plurality of outlets, the distributor including:
 - a distributor motor shaft having an axial direction different from an axial direction of the pumping motor shaft,
 - at least one opening and closing member configured to be rotatable in the housing of the pump to selectively open and close at least one of the plurality of outlets, and
 - a distributor motor configured to rotate the at least one opening and closing member about the distributor motor shaft.
2. The dish washing machine of claim 1, wherein at least one of the plurality of outlets has an opening in a longitudinal direction of the housing.
3. The dish washing machine of claim 1, wherein at least one of the plurality of outlets has an opening in an upward direction of the housing.
4. The dish washing machine of claim 1, wherein at least one of the plurality of outlets has an opening in a downward direction at an angle from 40 degrees to 50 degrees with respect to a longitudinal direction of the housing.
5. The dish washing machine of claim 1, wherein the axial direction of the distributor motor shaft faces is in a same direction as a longitudinal direction of the housing of the pump.
6. The dish washing machine of claim 1, wherein the axial direction the distributor motor shaft is perpendicular or approximately perpendicular to the axial direction of the pumping motor shaft.
7. The dish washing machine of claim 1, wherein the distributor is detachably coupled with one longitudinal end portion of the housing.
8. The dish washing machine of claim 1, wherein the distributor includes a first opening and closing member and a second opening and closing member, the first opening and closing member is disposed at one end of the distributor motor shaft, and
 - the second opening and closing member is disposed between the one end of the distributor motor shaft and another end of the distributor motor shaft.
9. The dish washing machine of claim 1, wherein the at least one opening and closing member includes at least one ridge and at least one valley, and according to rotation of the distributor motor shaft, one of the plurality of outlets is closed by the at least one ridge and another one of the plurality of outlets is opened by the at least one valley.
10. The dish washing machine of claim 1, wherein the at least one opening and closing member includes a cap which comes into close contact with a hole of one of the at least one of the plurality of outlets and cuts off leakage of the washing water when the one of the at least one of the plurality of outlets is closed by the at least one opening and closing member.
11. The dish washing machine of claim 1, wherein the at least one opening and closing member includes at least one ridge and at least one valley, and the at least one ridge includes a guide surface configured to guide the washing water.
12. The dish washing machine of claim 1, wherein the at least one opening and closing member includes a first blade and a second blade and closes at least one of the plurality of outlets using at least one of the first blade and the second blade.
13. The dish washing machine of claim 12, wherein the at least one opening and closing member further includes a lever positioned between the first blade and the second blade, and the lever is configured to support at least one of the first blade and the second blade to come into close contact with at least one hole of the at least one of the plurality of outlets when the at least one of the plurality of outlets is closed by the at least one opening and closing member.
14. The dish washing machine of claim 1, wherein the housing includes a spiral partition wall disposed along an inner circumferential surface of the housing to provide a flow channel of the washing water.
15. The dish washing machine of claim 1, wherein the distributor further includes:
 - a cam member coupled with the distributor motor shaft to rotate with the at least one opening and closing member, and
 - a micro switch in contact with the cam member to sense a rotation position of the at least one opening and closing member.
16. The dish washing machine of claim 15, wherein the cam member includes a convex portion and a concave portion alternately disposed along a circumferential direction to turn on and off the micro switch according to rotation of the cam member.
17. The dish washing machine of claim 15, wherein the distributor further includes a control portion which designates rotation positions of the at least one opening and closing member according to a time of turning on and off of the micro switch and rotates or stops the distributor motor to rotate the at least one opening and closing member to a necessary rotation position among the rotation positions.
18. The dish washing machine of claim 1, wherein the plurality of outlets include a first outlet and a second outlet,